Aquatic Animal Health Standards Commission March 2008 Report

Full assessment of infestation with *Terebrasabella heterouncinata* against the OIE criteria for listing aquatic animal disease

No.	Criteria	Parameters that support a listing	Listing	Explanatory notes
1	**A**	Loss of production due to slower growth rates and shell deformities that resulted in decreased marketability and value of product. In general a slight increase in mortalities associated with handling has been observed; elevated losses have been predicted under conditions of poor water quality. (8, 13, 3, 11).	+	
	Or			
2	**A**	Lack of quantitative data on impact in the wild. Eradication from the one site in California where the sabellid worm was established in wild gastropod populations was successful (1, 2, 9). Population surveys have not found the sabellid worm at any other site in California examined including those adjacent to known infected farms (6; 9). No significant impacts have been reported in wild invertebrate populations in South Africa where the sabellid worm is now known to be endemic. The sabellid worm was unknown prior to its initial observation in farmed California abalone (7, 5, 12, 11). There is a wide range of potential hosts, however host susceptibility varies among species with patello- and veti-gastropods being the preferred over many caeno-gastropods (12).	-	Because of its endemic nature in South Africa absence of noted impact may be related to absence of baseline data for comparison. No abalone are endemic to Chile where this sabellid worm has also been observed in farmed abalone.
	Or			
3	**A**	Not harmful to human health	-	
	And			
4	**B**	*T. heterouncinata* is the aetiological agent of the disease (5, 11, 3).	+	Genus and species were created after the outbreaks in California (5) and whether or not other species in this genus are defined is currently unknown.
	Or			
5	**B**	The aetiology is known (see B4).	NA	NA
	And			
6	**B**	Origin of the parasite: South Africa (5; 12) Now spread to: Chile (10), Mexico (Baja California) (8) and USA (California) (7; 5).	+	

Full assessment of infestation with *Terebrasabella heterouncinata* against the OIE criteria for listing aquatic animal disease (contd)

No.	Criteria	Parameters that support a listing	Listing	Explanatory notes
6 (contd)	**B**	It was demonstrated that this sabellid worm is a functional, simultaneous hermaphrodite which indicates that isolated individuals can produce reproductively viable offspring (4). Therefore the risk of spreading from infested populations is high. Sabellid worm reproduction is directly temperature dependent with reproduction observed at all experimental temperatures examined (between 11.2C and 20.9C).		
	And			
7	**B**	There are no published reports of infestations with this sabellid worm in gastropods from Europe, the Mediterranean and Australasia.	+	
	And			
8	**C**	Presence of macroscopic signs (e.g. presence of worm tubes on the growing edge of the abalone shell; heavy infestations result in visibly abnormal shell deposition, cessation of horizontal growth and, in some species, shell doming and lack of respiratory pore development.) can be considered a presumptive diagnosis. Shell radiography can assist in detecting the presence of worm tubes. Microscopic observations of excised or intact worms can be used as a confirmatory diagnosis within the known geographic range of this sabellid worm. Sentinel abalone or other accepted host species may be used in bioassays in conjunction with the above signs for monitoring purposes. Diagnosis is easier using smaller individuals with new lesions. Scanning electron microscopy is necessary for confirmation of the species when suggestive worms or lesions are found in new locations or new host species.	+	3; 5; 12
			list	

Listing here:-

1	2	3	4	5	6	7	8	Add to the OIE list?
+	-	-	+	N/A	+	+	+	list

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